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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,852	02/06/2002	Densen Cao	5061.11 P	9435

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EXAMINER

LEWIS, RALPH A

ART UNIT PAPER NUMBER

3732

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CS

Office Action Summary	Application No. 10/072,852	Applicant(s) CAO, DENSEN	
	Examiner Ralph A. Lewis	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Terminal Disclaimer filed March 24, 2004 Improper

The terminal disclaimer filed March 24, 2004 is improper because the last five serial numbers listed are incorrect and correspond to unrelated applications filed by others. Accordingly, the obvious-type double patenting rejection is repeated below.

Rejections based on Obvious-type Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 11-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,331,111. The patented claims of 6,331,111 set forth all the limitations of the present claims, but patented claims are presented in a more detailed narrower version than those of the present application. Merely setting forth the already patented structure in broader terms would have been obvious to one of ordinary skill in the art. More particularly, the claimed well in the patented claims (e.g. column 16, lines 53-54) meets the presently claimed "first reflective device" limitation, the patented "focus dome"

(column 17, line 46) meets the presently claimed "focusing lens" limitation and the patented "flexible section" (column 17, line 11) meets the presently claimed "second light reflective device" limitation

Claims 11-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over

claims 1-20 of copending Application No. 10/016,992;
claims 1-20 of copending Application No. 10/017,272;
claims 1-20 of copending Application No. 10/017,454;
claims 1-20 of copending Application No. 10/017,455;
claims 1-23 of copending Application No. 10/067,692;
claims 1-17 of copending Application No. 10/071,847
claims 1-17 of copending Application No. 10/072,462;
claims 1-18 of copending Application No. 10/072,613;
claims 1-19 of copending Application No. 10/072,635;
claims 1-23 of copending Application No. 10/072,826;
claims 1-17 of copending Application No. 10/072,831;
claims 1-20 of copending Application No. 10/072,850;
claims 1-20 of copending Application No. 10/072,853;
claims 1-20 of copending Application No. 10/072,859;
claims 1-20 of copending Application No. 10/073,672;
claims 1-20 of copending Application No. 10/073,819;
claims 1-20 of copending Application No. 10/073,822;
claims 1-19 of copending Application No. 10/073,823; and
claims 1-20 of copending Application No. 10/076,128.

The limitations of the present claims all appear to broader or slightly different obvious versions of the pending claims in the above identified applications. Merely leaving out limitations (e.g. the "wall outlet power adapter" of claim 1 in 10/016,992) in

order to make the claims broader or providing for different groupings of the elements set forth in the claims of the above identified pending applications would have been obvious to the ordinarily skilled artisan.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, line 5, there is no antecedent basis for "said "secondary heat sink."

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Logan et al (US 6,692,251)

Logan et al discloses in Figure 4 a dental curing light comprised of a housing 12, heat sink 26, at least one semiconductor chip 30 (on substrate 34) and light reflective device 43 with reflective surface 42 for collecting light emitted by the LEDs 30. The light reflected and collected from the reflecting device 43 is provided as a beam to focusing lens 44, which in turn focuses the light onto light transport device 76.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US 6,692,251) in view of Mills (WO 99/16136).

Logan et al discloses in Figure 4 a dental curing light comprised of a housing 12, heat sink 26 and a plurality of semiconductor chips 30 (on substrate 34). A fan 28 is located within the housing for cooling the LEDs 30 and heat sink 26. For the fan 28 to work, it is presumed that there is an airspace and vent within the housing 12. The Logan et al device further includes a light reflective device 43 with reflective surface 42

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for collecting light emitted by the LEDs 30. The light reflected and collected from the reflecting device 43 is provided as a beam to focusing lens 44, which in turn focuses the light onto light transport device 76.

The Logan et al device lacks the claimed "secondary heat sink" and "thermoelectric cooler," Mills et al, however, for a similar dental curing device in Figure 5 teaches that it is desirable to enhance the cooling of the LEDs by providing for a secondary elongated heat sink 45 with thermo electric cooler 50 and fan 49. To have improved the cooling of the Logan device by adding a secondary elongated heat sink and thermoelectric cooler as taught by Mills et al would have been obvious to one of ordinary skill in the art.

Applicants remarks presented in the response of March 24, 2004 have been considered and are moot in view of the new grounds of rejection.

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis
October 28, 2004


Ralph A. Lewis
Primary Examiner
Au3732